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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Yong Rui

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EXAMINER

SENF1, BEHROOZ M

ART UNIT

PAPER NUMBER

2621

MAIL DATE

DELIVERY MODE

06/18/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	09/681,835	RUI ET AL.	
	Examiner	Art Unit	
	Behrooz Senfi	2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 March 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 and 25-34 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-23 and 25-34 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Terminal Disclaimer

1. The terminal disclaimer filed on 03/27/2007 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of US 6,937,266 has been reviewed and is accepted. The terminal disclaimer has been recorded.

Response to Amendment

2. Applicant's arguments filed 03/27/2007 have been fully considered but they are not persuasive.

Response to remarks:

Applicant's mainly argues (remarks; filed 03/27/2007, page 8, lines 6 – 8 and page 10, lines 8 – 11 and lines 13 – 15) that combination of Bianchi and He et al. does not disclose the claimed feature "in a real world lecture environment".

Examiner respectfully disagrees with applicant; because, Michael H. Bianchi (i.e. page 3, figure 1) clearly shows the feature "real world lecture environment" as newly claimed. In view of the above claims 1 – 23 and 25 – 34 are finally rejected for the same reason as set forth in the last Office Action, mailed 12/27/2006. The rejections are being restated for applicant convenience.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1 – 23 and 25 - 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Michael H. Bianchi (a Fully Automatic, Multi-Camera System to Televisе Auditorium Presentations) in view of Li-wei He (The Virtual Cinematographer: A Paradigm for Automatic Real-Time Camera Control and Directing).

Regarding claim 1, H. Bianchi teaches, an automated audio/visual presentation of a lecture (fig. 1), and a camera system that provides multiple camera views of the lecture in a real world lecture environment (fig. 1 "real world lecture environment", page 2, lines 6 - 14), a virtual director that uses probabilistic rules to select a current camera view from the multiple camera views and is capable of changing the current camera view by switching between the multiple camera views in response to a triggering event (page 2, lines 10 – page 6, lines 9).

H. Bianchi is silent in regards to explicitly mention a set of expert video production rules that applied to select camera view.

Li-Wei in the same field teaches that filmmakers have developed a set of expert video production rules to control the camera orientation and to choose the instance in which the camera orientation with respect to the new line of interest is closest (page 1, right column, page 2, paragraphs below fig. 2 and page 4, paragraph 3.2.2).

In view of the above, it would have been obvious to one of having ordinary skill in the art at the time of the invention was made to modify fully automatic multi camera system of Bianchi in accordance with the teaching of Li-Wei to include rules to control the camera orientation and to choose the instance in which the camera orientation with

respect to the new line of interest is closest, as suggested by Li-Wei (page 1, right column, page 2, paragraphs below fig. 2 and page 4, paragraph 3.2.2).

Regarding claim 2, combination of Bianchi and Li-Wei teaches, wherein, the set of expert video production rules is applied by the virtual director to determine to which of the multiple camera views to switch (Li-Wei; page 4, paragraph 3.2.2).

Regarding claim 3, the limitations, triggering event and determine when to switch the current camera view, have been discussed earlier with regards to claims 1 – 2 above.

Regarding claim 4, Bianchi teaches, wherein the camera system includes a single camera (i.e. Pages 2 – 3, tracking camera).

Regarding claim 5, Bianchi teaches, wherein the camera system includes a plurality of cameras (i.e. page 2, lines 12 – 13).

Regarding claim 6, Bianchi teaches controlling camera in tracking an object within the lecture (fig. 1, in page 3). But is silent in regards to virtual cinematographer.

Li-Wei in the same field teaches a real time camera controller for automatic cinematographer, called the virtual cinematographer (page 1, abstract, and right column, third paragraph).

In view of the above, it would have been obvious to one having ordinary skill in the art at the time of the invention was made to utilize fully automatic multi camera system of Bianchi in accordance with the teaching of Li-Wei to demonstrate its operation in the context of a virtual party/environments, as suggested by Li-Wei (page 1, abstract, and right column, third paragraph).

Regarding claim 7, Bianchi teaches, providing a camera view of an audience, (Bianchi, page 1, abstract).

Regarding claim 8, Bianchi teaches, a microphone-array audience tracker that controls the audience tracking camera in tracking a member of the audience (page 10, lines 15 – 19).

Regarding claims 9 - 10, Bianchi teaches, an audience-tracking status module that provides status information of the audience-tracking camera to the virtual director (page 10, lines 15 – 19).

Regarding claim 11, Bianchi teaches, wherein the camera system includes a lecturer-tracking camera that provides a camera view of a lecturer (i.e. figs. 1 and 2).

Regarding claim 12, Bianchi teaches, motion tracker controls tracking camera in tracking the lecturer based on movement (page 3, lines 1 – 8).

Regarding claim 13, Bianchi teaches a fully automatic, multi camera system for tracking and televising; therefore, the camera status information has to be known and provided to the system, in order to be able to track and televise in a proper manner.

Regarding claim 14, Bianchi teaches, wherein the virtual director includes an event generator that generates the triggering event, (page 2, Auto Auditorium tracking camera).

Regarding claims 15 – 16, combination of Bianchi and Li-Wei teaches the claimed, time transition, and location transition (Li-wei; abstract, lines 9 – 13).

Regarding claim 18, the limitations claimed have been analyzed and rejected with respect to claim 1 above. Furthermore; Bianchi teaches video mixing and selection

among multiple camera view based using probabilistic transition to produce watchable programs (page 2, Auto Auditorium Director), which implies that the selection is a weighted random, since it is based on probabilistic transition.

Regarding claim 19, Bianchi teaches, computer-readable medium having computer-executable instructions (Bianchi, abstract, also page 2, 6 – 8) and computer executable instruction would have been necessitated by the system.

Regarding claims 20 - 21, the limitations, set of video production rules, have been analyzed and rejected with respect to claim 1 above.

Regarding claims 22 - 23, the limitations claimed have been analyzed and rejected with respect to claims 1 and 14.

Regarding claims 17 and 25, combination of Bianchi and Li-Wei teaches the claimed, finite state machine (Li-wei; abstract, lines 6 – 8).

Regarding claims 26 - 27, the limitations claimed have been analyzed and rejected with respect to claims 7 – 8 above.

Regarding claim 28, the limitations claimed have been analyzed and rejected with respect to claim 11 above.

Regarding claims 29 - 30, the limitations claimed have been analyzed and rejected with respect to claims 1 and 12 above.

Regarding claims 31 - 34, the limitations claimed have been analyzed and rejected with respect to claims 1, 11 and 18.

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Behrooz Senfi** whose telephone number is **(571) 272-7339**.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Mehrdad Dastouri** can be reached on **(571) 272-7418**.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

Or faxed to:


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(571) 273-8300

Hand-delivered responses should be brought to Randolph Building, 401 Dulany Street, Alexandria, Va. 22314.

Any inquiry of a general nature or relative to the status of the application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is **(571) 272-6000**.

B. M. S.



TUNG VO
PRIMARY EXAMINER